

SITING EVALUATION REPORT:

**CEDAR MOUNTAIN ENVIRONMENTAL LLC;
PROPOSED LOW-LEVEL RADIOACTIVE WASTE DISPOSAL
FACILITY
LOCATED AT SOUTH CLIVE, UTAH**

May 3, 2004

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INTRODUCTION

Under provisions of the Utah Radiation Control Act, Section 19-3-105, persons proposing to construct or operate new commercial radioactive waste disposal facilities, must obtain a plan approval from the Executive Secretary before applying for a license. The requirements for obtaining this plan approval are elaborated in the Utah Radiation Control Rules (URCR), Section R313-25-3. The topics that must be addressed in the application for such approval are stated below:

- ✓ National, state, or county parks, monuments, parks, and recreation areas
- ✓ Designated wilderness, wilderness study areas, and wild and scenic river areas
- ✓ Ecologically or scientifically significant natural areas
- ✓ 100- year flood plains
- ✓ Holocene faults
- ✓ Underground mines
- ✓ Salt domes or salt beds
- ✓ Dam failure flood areas
- ✓ Landslide, mud flow, or other earth movement
- ✓ Farmlands classified as prime, unique, or statewide importance
- ✓ Existing permanent dwellings, residential areas, or habitable structures
- ✓ Surface waters
- ✓ Archaeological sites
- ✓ Recharge zones of aquifers with TDS less than 10,000 mg/L
- ✓ Drinking water source protection areas
- ✓ Aquifers with TDS less than 500 mg/L & groundwater standards for pollutants
- ✓ Aquifers with TDS of 3000 to 10000 mg/L & groundwater less than 100 ft deep
- ✓ Withdrawal of water, gas or oil
- ✓ Weak unstable soils
- ✓ Karst terrains
- ✓ Aquifers with TDS less than 3,000 mg/L
- ✓ Aquifers with TDS less than 500 mg/L
- ✓ Distance to existing public water supplies of 5year travel plus 1000 ft.
- ✓ Hydraulic conductivity etc to estimate groundwater travel distance
- ✓ Aquifers in site area and water quality of all aquifers in area
- ✓ Vadose zone or other near surface monitoring
- ✓ Availability and adequacy of emergency services
- ✓ Emergency response plans and emergency response resources
- ✓ Emergency response plans for emergencies at the site
- ✓ Proposed transportation routes for wastes within the state
- ✓ Transportation means and routes to evacuate population at risk
- ✓ Land ownership
- ✓ Additional city or county requirements

On January 30, 2003, Cedar Mountain Environmental, Inc. (CME) submitted to the Utah Division of Radiation Control (the Division) its "Siting Criteria Plan" and initiated the five-stage process necessary for obtaining all approvals to construct and operate a new low-level radioactive (LLRW) disposal facility in the State of Utah. The site proposed for this LLRW disposal facility is located in Tooele County, Utah, within Section 29, Township 1 South, Range 11 West. As originally proposed, the site would consist 315 acres and would be located 2 miles south of the Clive interchange on Interstate 80, approximately 70 miles west of Salt Lake City.

In a submission to the Division dated February 6, 2004, CME expanded the area to be included in the proposed site boundaries from 315 to 387 acres, with all additional areas adjoining the originally proposed

area. The Division has reviewed the effects of this proposed expansion and ascertained that all conclusions that apply to the original 315 acres, apply equally as well to the expanded 387 acres.

The Division has reviewed the CME's "Siting Criteria Plan" and, with one exception, has concluded that all criteria of URCR R313-25-3 are satisfied at the proposed site. The one exception is the requirement that the applicant provide evidence either (1) that the land on which the proposed facility would be developed will be owned by the state or federal government or (2) that arrangements have been made for assumption of ownership in fee by a state or federal agency (URCR R313-25-3(8)). CME has requested an exemption from this requirement with the request that this matter be addressed during the licensing stage of the authorization process. CME's basis for this request is the fact that this requirement did not exist at the time CME submitted its "Siting Criteria Plan" in January of 2003.

In the pages that follow, the Division:

- ✓ Identifies the criteria that must be satisfied in order for it to grant approval as requested.
- ✓ Summarizes information that supports a conclusion about whether each criterion is satisfied.
- ✓ Lists references to relevant submittals and documents cited in CME's application.
- ✓ States and justifies its conclusion of whether the criterion has been satisfied.

CM-S01: Location Relative to National, State, or County Parks

FINDING:

CM-S01: The pre-licensing plan approval application does adequately demonstrate that the proposed treatment and disposal facilities are not located within a national, state, or county park. (URCR R313-25-3(3)(a)(i))

BASIS:

The Cedar Mountain Environmental, Inc. (CME) Site is located in Section 29, Township 1 South, Range 11 West, SLB&M, Tooele County in Utah, about 2 miles south of the Clive exit (exit #49) on Interstate 80, between Wendover and Salt Lake City. The application lists and includes an "Official Highway Map" produced by the Department of Transportation. (Copyright 2002) in Appendix B

The 2002 Highway Map (Appendix B) gave only unofficial evidence that the subject site in Section 29 is not located within a national, state, or county park, based on the map's lists and locations of National Parks, none of which is at or contiguous with the proposed site.

In response to Division interrogatories, CME provided a copy of a letter from Nicole L. Cline (Tooele County Planner and Zoning Administrator) to Mr. Allan D. Murphy of Broken Arrow. In the letter Ms. Cline stated that no national, state, or county parks exist or are proposed in the vicinity of the proposed site and facilities.

The Division accepts Ms. Cline's statement, together with the Division's general knowledge of the vicinity of the proposed site, to be adequate demonstration that no national, state, or county park is located in or near Section 29, where the disposal facility is proposed to be built.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," January 30, 2003.

"Official Highway Map" produced by the Department of Transportation. (Copyright 2002)

Cedar Mountain Environmental, Inc., Judd, Charles A, President, Letter to Craig Jones, Acting director, Utah Division of Radiation Control, June 5, 2003.

Nicole L. Cline, Tooele County Department of Engineering, Letter to Allan D. Murphy, Broken Arrow, May 27, 2003.

CM-S02: Location Relative to National, State, or County Monuments

FINDING:

CM-S02: The pre-licensing plan approval application does adequately demonstrate that the proposed treatment and disposal facilities are not located within a national, state, or county monument. (URCR R313-25-3(3)(a)(i))

BASIS:

The 2002 Highway Map (Appendix B) gave only unofficial evidence that the subject site in Section 29 is not located within a national, state, or county monument, based on the map's lists and locations of National Parks, none of which is at or contiguous with the proposed site.

In response to Division interrogatories, CME provided a copy of a letter from Nicole L. Cline (Tooele County Planner and Zoning Administrator) to Mr. Allan D. Murphy of Broken Arrow. In the letter from Ms. Cline to Mr. Murphy, Ms. Cline states that she is unaware of any historical monuments in Section 29 where the proposed site is to be developed. She further indicates that the only monuments likely to be present in the area of the proposed site are survey monuments, against which no prohibition exists.

The Division accepts Ms. Cline's statement, together with the Division's general knowledge of the vicinity of the proposed site, to be adequate demonstration that no national, state, or county monument is located in Section 29, where the disposal facility is proposed to be built.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," January 30, 2003.

Cedar Mountain Environmental, Inc., Judd, Charles A, President, Letter to Craig Jones, Acting director, Utah Division of Radiation Control, June 5, 2003.

Nicole L. Cline, Tooele County Department of Engineering, Letter to Allan D. Murphy, Broken Arrow, May 27, 2003.

CM-S03: Location Relative to National, State, or County Recreation Areas

FINDING:

CM-S03: The pre-licensing plan approval application does adequately demonstrate that the proposed treatment and disposal facilities are not located within a national, state, or county recreation area. (URCR R313-25-3(3)(a)(i))

BASIS:

The 2002 Highway Map (Appendix B) gave only unofficial evidence that the subject site in Section 29 is not located within a national, state, or county recreation areas, based on the map's lists and locations of National Parks, none of which is at or contiguous with the proposed site.

In response to Division interrogatories, CME provided a copy of a letter from Nicole L. Cline (Tooele County Planner and Zoning Administrator) to Mr. Allan D. Murphy of Broken Arrow. In the letter from Ms. Cline to Mr. Murphy, Ms. Cline states that there is no designated recreation area of any type in Section 29 where the proposed site is to be developed.

The Division accepts Ms. Cline's statement, together with the Division's general knowledge of the vicinity of the proposed site, to be adequate demonstration that no national, state, or county recreation area is located in Section 29, where the disposal facility is proposed to be built.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," January 30, 2003.

"Final Environmental Impact State: USPCI Clive Incinerator Facility Tooele County, Utah." U.S. Department of the Interior, Bureau of Land Management, Salt Lake District Office. June 1990

Nicole L. Cline, Tooele County Department of Engineering, Letter to Allan D. Murphy, Broken Arrow, May 27, 2003.

CM-S04: Location Relative to Designated Wilderness or Wilderness Study Areas

FINDING:

CM-S04: The pre-licensing plan approval application does adequately demonstrate that the proposed treatment and disposal facilities are not located within a designated wilderness or wilderness study area. (URCR R313-25-3(3)(a)(i))

BASIS:

The 2002 Highway Map (Appendix B) gave only unofficial evidence that the subject site in Section 29 is not located within a an area designated, based on the map's lists and locations of National Parks, none of which is at or contiguous with the proposed site.

In response to Division interrogatories, CME provided a copy of a letter from Nicole L. Cline (Tooele County Planner and Zoning Administrator) to Mr. Allan D. Murphy of Broken Arrow. In the letter from Ms. Cline to Mr. Murphy, Ms. Cline states that, as of the date of the letter, May 27, 2003, no plans had been published in the Federal Register or listed with the State of Utah that would list Section 29 as a wilderness study area. She added that Section 29 has not received Congressional designation as a wilderness area.

The Division accepts Ms. Cline's statement, together with the Division's general knowledge of the vicinity of the proposed site, to be adequate demonstration that no designated wilderness or wilderness study area is located in Section 29, where the disposal facility is proposed to be built.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," January 30, 2003.

Cedar Mountain Environmental, Inc., Judd, Charles A, President, Letter to Craig Jones, Acting director, Utah Division of Radiation Control, June 5, 2003.

"Final Environmental Impact State: USPCI Clive Incinerator Facility Tooele County, Utah." U.S. Department of the Interior, Bureau of Land Management, Salt Lake District Office. June 1990

Nicole L. Cline, Tooele County Department of Engineering, Letter to Allan D. Murphy, Broken Arrow, May 27, 2003.

CM-S05: Location Relative to Wild and Scenic River Areas

FINDING:

CM-S05: The pre-licensing plan approval application does adequately demonstrate that the treatment and disposal facility is not located within a wild and scenic river area. (URCR R313-25-3(3)(a)(i))

BASIS:

The CME's Siting Criteria Plan referred to "Shallow Ground Water and Related Hazards in Utah" (provided as Appendix E) as evidence that the subject site in Section 29 is not located within or near a wild or scenic river area, based on the reasonable expectation that the site is not on or contiguous with any river. However, this demonstration is indirect and not authoritative.

In response to Division interrogatories, CME provided a letter from Mr. Kent C. Staheli, registered professional engineer and Associate and Project Manager with Hansen, Allen & Luce Inc. of Midvale, Utah. In his letter, Mr. Staheli summarizes his field observations of the proposed site and its vicinity and his conclusion that the drainage areas within five miles of the proposed site in Section 29 are associated with ephemeral streams, against which no prohibition exists (refer to Finding CM-S15 below). Given that only ephemeral streams exist within five miles of the proposed site, it is clear that the site of the proposed disposal facility is not within a wild and scenic river area.

The Division thus concludes that disposal facility is not located within a wild and scenic river area.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," January 30, 2003.

Cedar Mountain Environmental, Inc., Judd, Charles A, President, Letter to Craig Jones, Acting director, Utah Division of Radiation Control, June 5, 2003.

Kent C. Staheli, Hansen, Allen & Luce Inc, Letter to Mr. Shane Johnson of RJ Developers LLC, May 29, 2003.

CM-S06: Location Relative to Ecologically or Scientifically Significant Natural Areas, Wildlife Management Areas, or Habitats for Endangered Species

FINDING:

CM-S06: The pre-licensing plan approval application does adequately demonstrate that the proposed treatment and disposal facilities are not located within or underlain by an ecologically or scientifically significant natural area, including wildlife management areas or habitats for listed or proposed endangered species as designated by federal law. (URCR R313-25-3(3)(a)(ii))

BASIS:

The U.S. Fish & Wildlife Service is continually updating threatened and endangered species listings and designating new critical habitats. The two Final environmental Impact Statements (FEIS) referenced in the application (NUREG-1476 and DOE/EIS-0099-F) and the draft Environmental Assessment (BLM No. U-69548) are authoritative objective evidence of a thorough evaluation of impact on endangered species and ecologically significant habitat through 1993.

CME has also demonstrated diligence to update the FEIS information by obtaining current information from the local office of the U.S. Fish & Wildlife Service. On March 3, 2000, the USFWS confirmed that there were at that time no endangered or threatened species, candidate species, and habitats of concern in that area of the facility.

In response to Division interrogatories, CME provided a letter from Mr. Henry R. Maddux, Utah Field Supervisor with the U.S. Department of Interior, Fish and Wildlife Service. In his letter, Mr. Maddux indicated agreement with the “no effect” determination for threatened and endangered species and critical habitat.

In a follow-up conversation with Mr. Maddux, he confirmed to the Division’s contractor representative that the “no effect” determination for the proposed site in Section 29 implicitly indicates that the site is not located in an ecologically or scientifically significant natural area or in habitats for listed or proposed endangered species as designated by federal law. Moreover, this determination also indicates that the proposed site is not located within a federal wildlife management area.

The Division thus concludes that the proposed site is not located within or underlain by an ecologically or scientifically significant natural area, including wildlife management areas or habitats for listed or proposed endangered species as designated by federal law.

REFERENCES:

Cedar Mountain Environmental, Inc., “Siting Criteria Plan,” January 30, 2003.

Sections 4.5.4, 5.1.5, and 5.2.5, Final Environmental Impact Statement to Construct and Operate Envirocare’s 11.e(2) Disposal Facility, NUREG-1476, U.S. NRC, August 1993.

Section 4.7.5, Final Environmental Impact Statement Remedial Actions at the Former Vitro Chemical Company Site South Salt Lake, Salt Lake County, Utah, DOE/EIS-0099-F, U.S. DOE, July 1984.

Sections 3.2, and 4.2, Draft Environmental Assessment, USPCI Grassy Mountain Land Exchange, BLM Serial No. U-69548, May 1993.

Letter from Ronald Gaynor relating personal communication with Larry English, USFWS, March 5, 2000.

Maddux, Henry R., Utah Field Supervisor with the U.S. Department of Interior, Fish and Wildlife Service, Letter to Lance Rich, RJ Developers LLC, May 29, 2003.

Personal Communication, Robert D. Baird, URS Corporation to Henry R. Maddux, U.S. Fish and Wildlife Service, September 8, 2003.

CM-S07: Location Relative to 100-Year Flood Plains

FINDING:

CM-S07: The pre-licensing plan approval application does adequately demonstrate that the proposed treatment and disposal facilities are not located within 100-year flood plains. (URCR R313-25-3(3)(a)(iii))

BASIS:

While the reference cited in CME's Siting Criteria Plan to the Vitro FEIS indicates that stream flows upstream of the Cedar Mountain area usually evaporate and infiltrate into the ground before reaching the lower, flatter lands east of the proposed site, it does not indicate whether the site is located within a 100-year flood plain.

In response to Division interrogatories, CME provided the Utah Geological and Mineral Survey's Map 111 entitled "Flood Hazards from Lakes and Failure of Dams in Utah" (copyrighted 1988). The map clearly shows that the proposed site has not been inundated with water in the last several hundred years and does not lie within a 100-year flood plain.

The Division thus concludes that the proposed site is not located within 100-year flood plains.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," January 30, 2003.

Cedar Mountain Environmental, Inc., Judd, Charles A, President, Letter to Craig Jones, Acting director, Utah Division of Radiation Control, June 5, 2003.

"Flood Hazards from Lakes and Failure of Dams in Utah," Utah Geological and Mineral Survey, Utah Department of Natural Resources, Map 111, 1988.

CM-S08: Location Relative to Holocene Faults

FINDING:

CM-S08: The pre-licensing plan approval application does adequately demonstrate that the proposed disposal facility is not located within 200 feet from a Holocene fault. (URCR R313-25-3(3)(a)(iv))

BASIS:

The application states, through reference to a secondary source (Appendix DD prepared by Bingham Environmental), that the nearest Holocene faulting is located 18 miles north in the northwest Puddle Valley, east of the Grassy Mountains. The secondary source, however, did not identify the primary sources, upon which its statements are based.

In response to Division interrogatories, CME indicated that the primary source was included in Appendix J of CME's Siting Criteria Plan.

Based on information in documents provided the Division concludes that the site is not located within 200 feet from a Holocene fault.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," January 30, 2003.

Cedar Mountain Environmental, Inc., Judd, Charles A, President, Letter to Craig Jones, Acting director, Utah Division of Radiation Control, June 5, 2003.

Barnhard, T.P. and Dodge, R.L., "Map of Fault Scarps Formed on Unconsolidated Sediments, Tooele 1 deg X 2 deg Quadrangle, Northwest Utah," U.S. Geological survey, Miscellaneous Field Studies Map MF-1990, 1988.

CM-S09: Location Relative to Underground Mines

FINDING:

CM-S09: The pre-licensing plan approval application does adequately demonstrate that the proposed disposal facility is not underlain by underground mines. (URCR R313-25-3(3)(a)(v))

BASIS:

CME's Siting Criteria Plan describes the recent search that confirmed that the 1999 Utah Geological Survey inventory of small and large mines is still valid in 2003. However, the results of this search were not presented, no person affiliated with DOGM was identified, and no statement by a person affiliated with DOGM was provided.

In response to Division interrogatories, CME produced a report of mines in Tooele County prepared by the Utah Department of Natural Resources, Division of Oil, Gas and Mining on May 29, 2003. This report clearly shows that no underground mines exist near the proposed site in Section 29.

The Division thus concludes that the proposed site is not underlain by underground mines.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," January 30, 2003.

Cedar Mountain Environmental, Inc., Judd, Charles A, President, Letter to Craig Jones, Acting director, Utah Division of Radiation Control, June 5, 2003.

CM-S10: Location Relative to Salt Domes or Salt Beds

FINDING:

CM-S10: The pre-licensing plan approval application does adequately demonstrate that the proposed disposal facility is not within or underlain by salt domes or salt beds. (URCR R313-25-3(3)(a)(v))

BASIS:

CME's Siting Criteria Plan states without reference or justification that no known underground salt domes or salt beds. In response to Division interrogatories, CME provided a statement by Mr. David Cline, registered professional engineer with Bingham Environmental. Mr. Cline reviewed previous investigations conducted in the vicinity and concluded that no salt domes, salt beds, or gypsiferous soils are mapped or known to exist below or immediately adjacent to the proposed site in Section 29.

The Division concludes that the proposed site is not within or underlain by salt domes or salt beds.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," Page 7 of 21, January 30, 2003.

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," Appendix K "Small Mine Permits in the State of Utah", Roger L. Bon and Sharon Wakefield, 1999.

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," Appendix L "Large Mine Permits in the State of Utah", Roger L. Bon and Sharon Wakefield, 1999.

Cedar Mountain Environmental, Inc., Judd, Charles A, President, Letter to Craig Jones, Acting director, Utah Division of Radiation Control, June 5, 2003.

Cline, David, Bingham Environmental, Attachment 6 to Judd letter to Jones dated June 5, 2003,

CM-S11: Location Relative to Dam Failure Flood Areas

FINDING:

CM-S11: The pre-licensing plan approval application does adequately demonstrate that the proposed treatment and disposal facilities are not located within dam failure flood areas.
(URCR R313-25-3(3)(a)(vi))

BASIS:

CME provided the map "Flood Hazard from Lakes and Failure of Dams in Utah", Utah Geological and Mineral Survey Map 111, 1988. Based on descriptions of the site location elsewhere in the application, the map clearly shows that the proposed site is near no dam, much less any dam that is capable of causing flooding at the proposed site and that the site has not been inundated with water in the last several hundred years. Thus, the Division concludes that the proposed site does not fall within a 100-year flood plain.

The Division concludes that the proposed site is not located within dam failure flood areas.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," 313-25-3(3)(a)(vi), January 30, 2003.

Appendix F, "Flood Hazard from Lakes and Failure of Dams in Utah," Utah Geological and Mineral Survey, 1988, "Fluctuation of Great Salt Lake," U.S. Geological Survey.

CM-S12: Location Relative to Areas Subject to Landslide, Mud Flow, or Other Earth Movement

FINDING:

CM-S12: The pre-licensing plan approval application does adequately demonstrate that the proposed treatment and disposal facilities are not located within or underlain by areas subject to landslide, mud flow, or other earth movement, unless adverse impacts can be mitigated. (URCR R313-25-3(3)(a)(vii))

BASIS:

CME provided the "Landslide Map of Utah", Utah Geological and Mineral Survey Map 133, 1991. Based on this map and descriptions of the site location elsewhere in the application, the proposed site is clearly well outside of any of the areas identified as subject to landslides, mudflows, or other earth movement."

The Division concludes that the proposed site is not located within or underlain by areas subject to landslide, mud flow, or other earth movement.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," 313-25-3(3)(a)(vii), January 30, 2003.

Utah Geological and Mineral Survey Map 133, 1991, "Landslide Map of Utah."

CM-S13: Location Relative to Certain Farmlands

FINDING:

CM-S13: The pre-licensing plan approval application does adequately demonstrate that the proposed treatment and disposal facilities are not located within farmlands classified or evaluated as “prime”, “unique”, or of “statewide importance” by the U.S. Department of Agricultural Soil Conservation Service under the Prime Farmland Protection Act. (URCR R313-25-3(3)(a)(viii))

BASIS:

CME referred to a phone conversation with Judy Henline of US Department of Agriculture, but without any documentation of the conversation. In response to Division interrogatories, CME provided a copy of a letter from Mr. William Broderson, State Soil Scientist for the Natural Resources Conservation Service of the U.S. Department of Agriculture (signed by Ms. Henline for Mr. Broderson) that confirms that the proposed site does not contain any prime, unique, or statewide important farmlands.

The Division concludes that the proposed site is not located within farmlands classified or evaluated as “prime”, “unique”, or of “statewide importance” by the U.S. Department of Agricultural Soil Conservation Service under the Prime Farmland Protection Act.

REFERENCES:

Cedar Mountain Environmental, Inc., “Siting Criteria Plan,” January 30, 2003.

Cedar Mountain Environmental, Inc., Judd, Charles A, President, Letter to Craig Jones, Acting director, Utah Division of Radiation Control, June 5, 2003.

Broderson, William, Natural Resources Conservation Service, U.S. Department of Agriculture, Letter to Shane Johnson, RJ Developers, LLC., May 29, 2003.

CM-S14: Location Relative to Existing Permanent Dwellings, Residential Areas, or Other Habitable Structures

FINDING:

CM-S14: The Pre-Licensing Plan Approval Application does adequately demonstrate that the proposed treatment and disposal facilities are not located in areas five miles distant from existing permanent dwellings, residential areas, or other habitable structures, including schools, churches, and historic structures. (URCR R313-25-3(3)(a)(ix))

BASIS:

CME identified the apparent nearest dwelling as being just over 5 miles away at the viewpoint rest stop on Interstate 15 north east of the site. In response to Division interrogatories, CME provided a copy of a letter from Nicole L. Cline (Tooele County Planner and Zoning Administrator) to Mr. Allan D. Murphy of Broken Arrow. In the letter Ms. Cline stated that the only permanent dwelling in the vicinity of the proposed site is at the Arragonite rest stop on Interstate 80, near Clive, UT. At this location, greater than five miles for the proposed site, an employee of the Utah Department of Transportation resides as caretaker of the rest stop.

The Division has independently confirmed that this residence is more distant than five miles from the nearest location of the proposed site. The Division has also independently confirmed that no schools, churches, or other historic structures exist within five miles of the proposed site.

The Division concludes that the proposed site is not located in areas less than five miles distant from existing permanent dwellings, residential areas, or other habitable structures, including schools, churches, and historic structures.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," January 30, 2003.

"Map – Ripple Valley Quadrangle." Utah-Tooele County 7.5 Minute Series Orthophotomap (Topographic). U.S. Department of the Interior, Geological Survey. 1973.

"Index by State County." Nation Register Information System. Internet search at <http://www.nr.nps.gov/>. January 2003.

Cedar Mountain Environmental, Inc., Judd, Charles A, President, Letter to Craig Jones, Acting director, Utah Division of Radiation Control, June 5, 2003.

Nicole L. Cline, Tooele County Department of Engineering, Letter to Allan D. Murphy, Broken Arrow, May 27, 2003.

CM-S15: Location Relative to Surface Waters

FINDING:

CM-S15: The Pre-Licensing Plan Approval Application does adequately demonstrate that the proposed treatment and disposal facilities are not located in areas five miles distant from surface waters, including intermittent streams, perennial streams, rivers, lakes, reservoirs, and wetlands. (URCR R313-25-3(3)(a)(x))

BASIS:

CME cited the Utah Department of Natural Resources Technical Publication No. 42, which indicates that streams in mountainous areas are perennial and become ephemeral in their lower reaches. This report addresses only areas far north of the subject site and does not provide definitive evidence that identified streams on the USGS topographic maps within 5 miles of the site are ephemeral.

The symbols used for intermittent stream and narrow wash are identical on USGS topographic maps. USGS maps do not distinguish ephemeral streams from intermittent streams. Therefore, referring to these maps alone, as CME initially did, is inconclusive.

In response to Division interrogatories, CME provided a letter from Mr. Kent C. Staheli, registered professional engineer and Associate and Project Manager with Hansen, Allen & Luce Inc. of Midvale, Utah. In his letter, Mr. Staheli summarized his field observations of the proposed site and its vicinity and concluded that the drainage areas within five miles of the proposed site in Section 29 are associated with ephemeral streams, against which no prohibition exists (refer to Finding CM-S05 above). Given that only ephemeral streams exist within five miles of the proposed site, reference to the topographic maps provided make it clear that no surface waters (including intermittent streams, perennial streams, rivers, lakes, and reservoirs) exist within five miles of the proposed site.

CME provided the results of a search of the National Wetlands Inventory maintained by the U.S. Fish and Wildlife Service (located at <http://wetlands.fws.gov>). This search revealed that no wetlands are located within five miles of the proposed site.

The Division concludes that the proposed site is not located in areas less than five miles distant from surface waters, including intermittent streams, perennial streams, rivers, lakes, reservoirs, and wetlands.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," January 30, 2003.

"Hydrologic Reconnaissance of the Northern Great Salt Lake Desert and Summary Hydrologic Reconnaissance of Northwestern Utah, Utah Department of Natural Resources, Technical Publication No. 42, 1974.

"Aragonite Quadrangle", US Geological Survey, 7.5-Minute Series of Orthotopomap (Topographic), 1973.

“Aragonite NW Quadrangle”, US Geological Survey, 7.5-Minute Series of Orthotopomap (Topographic), 1973.

“Aragonite SE Quadrangle”, US Geological Survey, 7.5-Minute Series of Orthotopomap (Topographic), 1973.

“Aragonite SW Quadrangle”, US Geological Survey, 7.5-Minute Series of Orthotopomap (Topographic), 1973.

“Ripple Valley”, US Geological Survey, 7.5-Minute Series of Orthotopomap (Topographic), 1973.

“Grayback Hills”, US Geological Survey, 7.5-Minute Series of Orthotopomap (Topographic), 1973.

Cedar Mountain Environmental, Inc., Judd, Charles A, President, Letter to Craig Jones, Acting director, Utah Division of Radiation Control, June 5, 2003.

Kent C. Staheli, Hansen, Allen & Luce Inc, Letter to Mr. Shane Johnson of RJ Developers LLC, May 29, 2003.

CM-S16: Location Relative to Archaeological Sites

FINDING:

CM-S16: The pre-licensing plan approval application does adequately demonstrate that the proposed treatment and disposal facilities are not located in areas 1,000 feet distant from archeological sites to which adverse impacts cannot reasonably be mitigated. (URCR R313-25-3(3)(a)(xii))

BASIS:

CME provided a class III cultural resource inventory of Section 29 and adjoining sections prepared by TRC Mariah Associates Inc. This survey identified three cultural resources as artifacts greater than 50 years of age. Of the three only two meet eligibility requirements for the National Register of Historic Places (NRHP) as stated in the federal regulation 36CFR60.4. The first, an abandoned road segment labeled 42TO1117, is ineligible for NRHP. The second, the railroad itself, labeled 42TO1299, has been recommend for acceptance to the NRHP. The third is the remnants of the Clive siding railroad maintenance shop, labeled as 42TO1118, which has already been accepted for the NRHP.

TRC states its judgment that construction of a railroad spur would have no adverse effect and would be consistent with its current uses. TRC also states that the project will need to avoid the Clive siding (42TO1118) or take mitigative actions to prevent unnecessary disturbance of that site. All three resources are within a 1000 ft of the proposed construction activities. Therefore either specific site development plans will be required to demonstrate that these archeological sites will not be impacted or a mitigation plan will be required to demonstrate that they will be appropriately protected.

The Division consulted with the Utah State Historical Preservation Office (SHPO) to assess whether a mitigation plan would be required. Mr. James Dykmann, State Preservation Officer – Archaeology with SHPO, reviewed the TRA survey and concluded that items 42TO1299 and 42TO1118 are eligible for NRHP, while 42TO1119 is not. He also made a determination of Adverse Effect, primarily for the fact that development plans were so vaguely defined at this early stage of development.

After conferring with the Division, CME developed a mitigation plan and submitted it for review and evaluation. The Division forwarded the Mitigation Plan to Mr. Dykmann, who concluded as follows:

42TO1118	Determination of No Adverse Effect
42TO1117	No Historic Property Affected
42TO1299	Determination of No Adverse Effect “. . . if mitigation measures are followed as outlined in the February 6 th letter from Cedar Mountain . . .”

The Division concurs with Mr. Dykmann’s assessments and conclusions. The Division concludes that adverse impacts to those archaeological resources located within 1,000 of the proposed site boundaries, should they materialize, can reasonably be mitigated.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," January 30, 2003.

Cedar Mountain Environmental, Inc., Judd, Charles A, President, Letter to Craig Jones, Acting director, Utah Division of Radiation Control, August 21, 2003.

TRC Mariah Associates Inc., "A Class III Cultural Resource Inventory of the Cedar Mountain Environmental Radioactive Waste Disposal Site, Tooele County, Utah," August 2003.

Dykman, James L., "Cedar Mountain Environmental LLC Applicant, South Clive, Tooele County, U-03-ME-0643p", letter to Robert D. Baird of URS Corporation, November 19, 2003.

Judd, Charles, A., letter including Exhibit A, "Mitigation Plan" to Dane Finerfrock, Utah Division of Radiation Control, February 6, 2004.

Dykman, James L., "Cedar Mountain Environmental LLC, Applicant, Proposed Low-Level Radioactive Waste Disposal Facility, South Clive, Tooele County, U-03-ME-0643p", letter to Robert D. Baird of URS Corporation, March 5, 2004.

CM-S17: Location Relative to Recharge Zones of Certain Aquifers

FINDING:

CM-17: The pre-licensing plan approval application does adequately demonstrate that the proposed treatment and disposal facilities are not underlain by recharge zones of aquifers containing ground water which has a total dissolved solids content of less than 10,000 mg/L. (URCR R313-25-3(3)(a)(xiii))

BASIS:

The application identifies three aquifers in the region of the facility. Total dissolved solids (TDS) within all of these aquifers tend to be greater than 10,000 mg/L as reported in the Utah Department of Natural Resources Technical Publication No. 42. Additional data from 5 monitor wells at the DOE Vitro site (within one mile of the proposed site boundaries) indicate TDS content much greater than 10,000 mg/L and with an average of 34,915 mg/L. Sampling in Section 29 conducted by Bingham Environmental indicates TDS concentrations of approximately 30,000 mg/L.

Because TDS concentrations are well in excess of 10,000 mg/L, the Division concludes that the proposed site is not underlain by recharge zones of aquifers containing ground water which has a total dissolved solids content of less than 10,000 mg/L.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," 313-25-3(3)(a)(xiii), January 30, 2003.

"Hydrologic Reconnaissance of the Northern Great Salt Lake Desert and Summary Hydrologic Reconnaissance of Northwestern Utah, Utah Department of Natural Resources, Technical Publication No. 42, 1974.

Final Environmental Impact Statement Remedial Actions at the Former Vitro Chemical Company Site South Salt Lake, Salt Lake County, Utah, DOE/EIS-0099-F, U.S. DOE, July 1984.

Bingham Environmental, "Section 29, T1S, R11W; Tooele County, Utah; Geohydrological Assessment," January 29, 2003.

CM-S18: Location Relative to Drinking Water Source Protection Areas

FINDING:

CM-S18: The pre-licensing plan approval application does adequately demonstrate that the proposed treatment and disposal facilities are not located within or underlain by drinking water source protection areas designated by the Utah Drinking Water Board. (URCR R313-25-3(3)(a)(xiii))

BASIS:

The information provided discussed existing water rights in the vicinity of the facility. The information did not identify the criteria which establish a drinking water protection area, and did not state whether the Facility is in an area designated as a drinking water source protection area by the Utah Drinking Water Board.

In response to Division interrogatories, CME provided the criteria from Utah Rule 309-600 which delineates the standards for drinking water source protection for groundwater sources. From this information, the three conditions for a protected aquifer are:

1. A naturally protective layer of clay, at least 30 feet in thickness, is present above the aquifer;
2. The Public Water system (PWS) provides data to indicate the lateral continuity of the clay layer to the extent of zone two; and
3. The public-supply well is grouted with a grout seal that extends from the ground surface down at least 100 feet below the surface, and for a thickness of at least 30 feet through the protective clay layer.

Mark E. Jensen, professional geologist with the Utah Division of Drinking Water reviewed the files and indicated that the proposed site is not located above any public water sources or drinking water sources. Mr. Jensen further reported that the nearest public water source is at the Grassy Mountain Rest Area [adjacent to Interstate 15] and is located at a distance of 6.25 miles from the proposed site.

The conclusion that no drinking water exists below the proposed site is consistent with existing water rights near the proposed site. None of these water rights indicate the use of groundwater as drinking water. Refer also to the finding for CM-S21 below.

On the basis of these facts and authoritative statements, the Division concludes that the proposed site is not located within or underlain by drinking water source protection areas designated by the Utah Drinking Water Board.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," January 30, 2003.

Cedar Mountain Environmental, Inc., Judd, Charles A, President, Letter to Craig Jones, Acting director, Utah Division of Radiation Control, August 21, 2003.

Jensen, Mark, "Re: Drinking Water Request," Utah Division of Drinking water, e-mail to Lance Rich of RJ

developers, LLC, June 26, 2003.

CM-S19: Location Relative to Certain Aquifers

FINDING:

CM-S19: The pre-licensing plan approval application does adequately demonstrate that the proposed treatment and disposal facilities are not located in areas above or underlain by aquifers containing ground water which has a total dissolved solids content of less than 500 mg/l and which aquifers do not exceed state ground water standards for pollutants. (URCR R313-25-3(3)(b)(i))

BASIS:

The application shows that the levels of total dissolved solids (TDS) in both the shallow unconfined aquifer and the underlying confined aquifer far exceed 500 mg/L. The TDS content of the shallow unconfined aquifer ranges between 24,000 and 61,000 mg/l. The deeper confined aquifer is also saline and has a TDS content of about 30,000 mg/l.

The Division concludes that the proposed site is not located in areas above or underlain by aquifers containing ground water which has a total dissolved solids content of less than 500 mg/l and which aquifers do not exceed state ground water standards for pollutants.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," 313-25-3(3)(b)(I), January 30, 2003.

Final Environmental Impact Statement Remedial Actions at the Former Vitro Chemical Company Site South Salt Lake, Salt Lake County, Utah, DOE/EIS-0099-F, U.S. DOE, July 1984.

CM-S20: Location Relative to Certain Other Aquifers

FINDING:

CM-S20: The pre-licensing plan approval application does adequately demonstrate that the proposed treatment and disposal facilities are not located in areas above or underlain by aquifers containing ground water which has a total dissolve solids content between 3,000 and 10,000 mg/L when the distance from the surface to the ground water is less than 100 ft. (URCR R313-25-3(3)(b)(ii))

BASIS:

CME has shown that at the proposed site, the vertical distance from the ground surface to groundwater is less than 100 feet, and therefore this criterion applies. The shallow unconfined aquifer is approximately 30 feet below the ground surface and the top of the confined aquifer is about 40 feet below the ground. However, the application shows that the levels of total dissolved solids (TDS) in both of these aquifers exceed 10,000 mg/l. The TDS content of the shallow unconfined aquifer ranges between 24,000 and 61,000 mg/l. The deeper confined aquifer is also saline and has a TDS content of about 30,000 mg/l.

The Division concludes that the proposed site is not located in areas above or underlain by aquifers containing ground water which has a total dissolve solids content between 3,000 and 10,000 mg/L when the distance from the surface to the ground water is less than 100 ft.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," 313-25-3(3)(b)(ii), January 30, 2003.

Final Environmental Impact Statement Remedial Actions at the Former Vitro Chemical Company Site South Salt Lake, Salt Lake County, Utah, DOE/EIS-0099-F, U.S. DOE, July 1984.

CM-S21: Location Relative to Areas of Extensive Withdrawal of Water, Mineral, or Energy Resources

FINDING:

CM-S21: The Pre-Licensing Plan Approval Application does adequately demonstrate that the proposed treatment and disposal facilities are not located in areas of extensive withdrawal of water, mineral, or energy resources. (URCR R313-25-3(3)(b)(iii))

BASIS:

CME provides a listing of the water rights in the vicinity of the Facility (Section 29 of Township 1 South, Range 11 West). The information identifies three existing water rights. The water is used for dust control, truck washing, and stock watering. None of these water uses is expected to require extensive withdrawal of water.

On the topic of mineral resources, CME presents the results of a search of mining permits in Utah. The permits are classified as small mines (less than 5 acres) or large mines. The results of the search show that the nearest mine to the proposed site is an aragonite mine located about 8 miles east of the proposed site. CME also presents the results of a search of oil and gas wells for all of Tooele County. The search results indicate that there are no oil or gas wells in the vicinity of the facility.

The Division concludes that the proposed site is not located in areas of extensive withdrawal of water, mineral, or energy resources.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," Appendix K, "Small Mine Permits in the State of Utah," January 30, 2003.

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," Appendix L, "Large Mine Permits in the State of Utah," January 30, 2003.

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," Appendix Z, "Water Right Search by Point of Diversion," January 30, 2003.

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," Appendix AA, "Tooele County Well Search," January 30, 2003.

CM-S22: Location Relative to Weak Unstable Soils

FINDING:

CM-S22: The pre-licensing plan approval application does adequately demonstrate that the proposed treatment and disposal facilities are not located in areas above or underlain by weak unstable soils, including soils that lose their ability to support foundations as a result of hydrocompaction, expansion, or shrinkage. (URCR R313-25-3(3)(b)(iv))

BASIS:

Appendix A to CME's "Siting Criteria Plan" present a summary of geologic hazards in the west Desert Hazardous Industry Area. Based on this information, the likelihoods that geologic hazards are present at the proposed site are as follows:

- ✓ Susceptibility to Deep-seated landslide – Very Low
- ✓ Susceptibility to liquefaction – Low
- ✓ Susceptibility to source-area slope failure – Low
- ✓ Presence of gypsiferous or expansive soils – Not Indicated

In response to Division interrogatories, CME provided a statement by Mr. David K. Cline, registered professional engineer with Bingham Environmental. Mr. Cline reviewed work performed previously in the vicinity (Section 32) and concluded that "... the potential for damage due to expansive soil is considered to be relatively low."

The Division concludes that the proposed site is not located in areas above or underlain by weak unstable soils, including soils that lose their ability to support foundations as a result of hydrocompaction, expansion, or shrinkage.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," January 30, 2003.

Utah Geological Survey, Special Study 96, "Geology and Geologic Hazards of Tooele Valley and the West Desert Hazardous Industry Area, Tooele County, Utah", 1999.

Cedar Mountain Environmental, Inc., Judd, Charles A, President, Letter to Craig Jones, Acting director, Utah Division of Radiation Control, June 5, 2003.

Cline, David K., "Responses from David K. Cline, P.E.," Bingham Environmental, Attachment 6 to Judd letter to William J. Sinclair of the Utah Division of Radiation Control dated June 5, 2003,

CM-S23: Location Relative to Karst Terrains

FINDING:

CM-S23: The pre-licensing plan approval application does adequately demonstrate that the proposed treatment and disposal facilities are not located in areas underlain by karst terrains. (URCR R313-25-3(3)(b)(v))

BASIS:

The application cites previous findings in Appendix P (Utah Department of Natural Resources hydrologic report) as showing that there are no underlying karst features in the area of the site. The report indicates the site rests on Quaternary lakebed deposits of Lake Bonneville. The underlying Tertiary and Quaternary age valley fill is composed of semi-consolidated clays, sands, and gravel where it comes in contact with bedrock. A log from a well drilled and abandoned in Section 29 indicates that the lacustrine deposits extend to at least 600 feet below the surface. None of the documents reviewed suggests the presence of karst materials, ground water sources in karst, or surface features that reflect the presence of karst materials in the vicinity of the site.

The Division concludes that the proposed site is not located in areas underlain by karst terrains

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," January 30, 2003.

"Hydrologic Reconnaissance of the Northern Great Salt Lake Desert and Summary Hydrologic Reconnaissance of Northwestern Utah, Utah Department of Natural Resources, Technical Publication No. 42, 1974.

Utah Division of Water Rights, Water Right Search by Point of Diversion, January 2003.

CM-S24: Location Relative to Existing Drinking Water Wells and Watersheds for Public Water Supplies

FINDING:

CM-S24: The pre-licensing plan approval application does adequately demonstrate that commercial low-level radioactive waste are not located within a distance to existing drinking water wells and watersheds for public water supplies of five years' ground water travel time plus 1,000 feet. (URCR R313-25-3-(5))

BASIS:

The application shows that the groundwater flow velocity in the shallow unconfined is estimated to be 0.4 ft/yr or 2 feet in five years (Bingham Environmental, Geohydrological Assessment). Using the value of 2 feet in five years, ground water travel plus 1,000 feet is about 1,002 feet.

The well inventory search performed indicates four wells in the area. Water from the two wells located within the site is used for dust suppression. The other two wells shown are about four miles from the site and are used for watering livestock.

The Division concludes that the proposed site is not located within a distance to existing drinking water wells and watersheds for public water supplies of five years' ground water travel time plus 1,000 feet.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," 313-25-3-(5), January 30, 2003.

Bingham Environmental, "Section 29, T1S, R11W; Tooele County, Utah; Geohydrological Assessment," January 29, 2003.

Utah Division of Water Rights, Water Right Search by Point of Diversion, January 2003.

CM-S25: Hydraulic Conductivity and Other Information Necessary to Adequately Estimate the Ground Water Velocity

FINDING:

CM-S25: The pre-licensing plan approval application does include hydraulic conductivity and other information necessary to adequately estimate the ground water travel distance. (URCR R313-25-3(5))

BASIS:

CME presents hydraulic conductivity data and depths to the unconfined and confined aquifers beneath the proposed site. The hydraulic characteristics of the site are expected to be very similar to those in the neighboring section 32, for which extensive data have been gathered. The horizontal hydraulic conductivity is 2.2×10^{-4} cm/s in the unconfined aquifer and 5.3×10^{-4} cm/s in the deeper confined aquifer. A 25-foot deep excavation has been made in Section 29 and a well has been drilled to verify that the soil lithology and depths to groundwater are similar to those in Section 32, which have previously been characterized. CME has provided a geohydrological assessment for Section 29 stating the similarities between its characteristics and those of the neighboring Section 32.

The Division concludes that the application includes hydraulic conductivity and other information necessary to adequately estimate the ground water travel distance.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," Appendix DD "Section 29, T1S, R11W, Tooele County Utah, Geohydrological Assessment," prepared by Bingham Environmental, January 29, 2003.

CM-S26: Results of Studies to Identify the Presence of Aquifers and to Assess the Quality of Ground Water

FINDING:

CM-S26: The pre-licensing plan approval application does include the results of studies adequate to identify the presence of ground water aquifers in the area of the proposed site and to assess the quality of the ground water of all aquifers identified in the area of the proposed site. (URCR R313-25-3(6))

BASIS:

The application contains information from the Utah Geological Survey and the hydrological data from DOE's Vitro FEIS, which provided a good summary description of the ground water aquifers and ground water quality in the vicinity of the site. These reports contain numerous citations to specific studies conducted by CME's hydrogeologic contractors, DOE, and others. CME has demonstrated use of both historical and recent ground water characterization data to allow for comparison over time.

The Division concludes that the application includes results of studies adequate to identify the presence of ground water aquifers in the area of the proposed site and to assess the quality of the ground water of all aquifers identified in the area of the proposed site

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," 313-25-3-(6), January 30, 2003.

Final Environmental Impact Statement Remedial Actions at the Former Vitro Chemical Company Site South Salt Lake, Salt Lake County, Utah, DOE/EIS-0099-F, U.S. DOE, July 1984.

Utah Geological Survey, Special Study 96, "Geology and Geologic Hazards of Tooele Valley and the West Desert Hazardous Industry Area, Tooele County, Utah", 1999.

Bingham Environmental, "Section 29, T1S, R11W; Tooele County, Utah; Geohydrological Assessment," January 29, 2003.

CM-S27: Availability and Adequacy of Services for On-Site Emergencies

FINDING:

CM-S27: The pre-licensing plan approval application does adequately demonstrate the availability and adequacy of services for on-site emergencies, including those for medical and fire response. (URCR R313-25-3(7)(a))

BASIS:

CME lists emergency response organizations that are available should the need arise.

The list of emergencies and associated hazards that are “reasonable” has been prepared to aid planning. CME provided an Emergency Response Plan that addresses potential responses to emergencies associated with fires, explosions, and releases. The CME Emergency Response Plan details the response that will be available at the proposed site. All site personnel will be trained on the Emergency Response Plan to ensure that procedures will be followed during emergencies. Training will include regularly conducted mock emergency situations. A list of emergency response equipment at the proposed site is included in the emergency Response Plan.

In event of fire, a trained fire response unit can be contacted through the Tooele County emergency dispatch system. The city of Wendover also maintains and has available for emergencies at Clive a fire response team. Both agencies have been contacted and are available to respond with well-trained emergency response personnel.

In the event of a medical emergency, trained CME personnel will initially respond and CME will train its supervisors as First Responders. An EMT will be on site at all times that operations are being conducted. Outside medical assistance will be obtained through dispatch of either Tooele County or Wendover ambulances, both of which are 24-hour-per-day services. Both services have agreed to assist in medical emergencies. Air Med is also available to respond in the event of life-threatening emergencies.

The Division concludes that the application demonstrates the availability and adequacy of services for on-site emergencies, including those for medical and fire response.

REFERENCES:

Cedar Mountain Environmental, Inc., “Siting Criteria Plan,” January 30, 2003.

Cedar Mountain Environmental, Inc., Judd, Charles A, President, Letter to Craig Jones, Acting director, Utah Division of Radiation Control, August 21, 2003.

C Cedar Mountain Environmental, Inc., Judd, Charles A, President, Letter to Craig Jones, Acting director, Utah Division of Radiation Control, Attachment 4 “Emergency Response Plan” (undated), August 21, 2003.

CM-S28: Coordination of On-Site Emergency Response Plans with the Local

Emergency Response Planning Committee

FINDING:

CM-S28: The pre-licensing plan approval application does provide written evidence that the applicant has coordinated on-site emergency response plans with the local emergency response planning committee. (URCR R313-25-3(7)(a))

BASIS:

In response to Division interrogatories, CME contacted and worked with all available emergency response authorities to properly address response from local agencies. Mr. Harry Shinton, chairman of the Tooele County Local Emergency Planning Commission and planner in the Hazardous Materials Division of the Tooele County Sheriff's Office, has provided a written statement that his agency has reviewed and found acceptable CME's Emergency Response Plan.

The Division concludes that CME has provided written evidence that the applicant has coordinated on-site emergency response plans with the local emergency response planning committee.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," January 30, 2003.

Cedar Mountain Environmental, Inc., Judd, Charles A, President, Letter to Craig Jones, Acting director, Utah Division of Radiation Control, August 21, 2003.

Cedar Mountain Environmental, Inc., Judd, Charles A, President, Letter to Craig Jones, Acting director, Utah Division of Radiation Control, Attachment 4 "Emergency Response Plan" (undated), August 21, 2003.

CM-S29: Comprehensive Plan for Responding to Emergencies at the Site

FINDING:

CM-S29: The pre-licensing plan approval application does adequately include a comprehensive plan for responding to emergencies at the site. (URCR R313-25-3(7)(b))

BASIS:

CME developed, prepared, and submitted its Emergency Response Plan for the Division's review. In addition, CME discussed and coordinated its Emergency Response Plan with the Tooele Emergency Response Committee, Wendover fire and ambulance services, and Air Med emergency airborne evacuation service. CME represents that its plan has been distributed for review and approval by these agencies.

The Division concludes that CME has provided a comprehensive plan for responding to emergencies at the proposed site.. Since no requirement exists that potentially responding agencies have accept the Emergency Response Plan, the Division judges lack of documentation of this acceptance to be inconsequential for the purpose of determining compliance with the regulatory requirement.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," January 30, 2003.

Cedar Mountain Environmental, Inc., Judd, Charles A, President, Letter to Craig Jones, Acting director, Utah Division of Radiation Control, Attachment 4 "Emergency Response Plan" (undated), August 21, 2003.

CM-S30: Proposed Routes for Transportation of Radioactive Wastes

FINDING:

CM-S30: The pre-licensing plan approval application does adequately show proposed routes for transportation of radioactive wastes within the state. (URCR R313-25-3(7)(c))

BASIS:

CME has identified the specific highway to the site as follows:

Shipment Coming From	Transportation Route
From the West or Northeast	Interstate 80
From the Northwest	Interstate 84 to Interstate 84 to Interstate 80
From the Southwest	Interstate 15 to Interstate 80
From the North	Interstate 15 to Interstate 80
From the East	Interstate 70 to US Route 6, to Interstate 80
From the South or Southeast	US Route 666 to US Route 191 to Interstate 70 to US Route 6 to Interstate 80

Access to the site from Interstate 80 is via ramps constructed to Highway Standards. Roads south of Access to the site from Interstate 80 are paved roads maintained by Tooele County.

In addition, CME has also stated that access to the site for rail shipments will be from the east-west Union Pacific mainline that runs through the northern portion of the proposed site.

The Division concludes that CME has shown proposed routes for transportation of radioactive wastes within the state.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," 313-25-3-(9)(c), January 30, 2003.

CM-S31: Transportation Means and Routes for Evacuating the Population at Risk In the Event of On-Site Accident

FINDING:

CM-S31: The pre-licensing plan approval application does adequately address the transportation means and routes available to evacuate the population at risk in the event of on-site accident, including spills and fires. (URCR R313-25-3(7)(c))

BASIS:

Included in the Cedar Mountain Emergency Response Plan is a Site Map with Evacuation Routes for the proposed site. A perimeter fence will be installed at the proposed site that will circumscribe the facility. An access road will be constructed to run parallel to the fence along the outside of the fence. Likewise, an access road will run parallel to the fence on the inside (controlled area). There will be two primary access points to the perimeter fence. One will be located at the main building (at the northwest corner of the facility). The other will be located at the rail spur on the southeast corner of the facility. The site map shows these access points through which personnel would evacuate if required. The perimeter road connects to the paved county road that exists along the west side of the proposed site. This county road connects to Interstate 80, which is located approximately 4 miles from what would be the main building of the proposed site. These roads provide ready evacuation routes if needed for an emergency.

The Division concludes that CME has addressed the transportation means and routes available to evacuate the population at risk in the event of on-site accident, including spills and fires.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," January 30, 2003.

Cedar Mountain Environmental, Inc., Judd, Charles A, President, Letter to Craig Jones, Acting director, Utah Division of Radiation Control, Attachment 4 "Emergency Response Plan" (undated), August 21, 2003.

Cedar Mountain Environmental, Inc., "The Cedar Mountain Emergency Response Plan," Undated.

CM-S32:Ownership of the Proposed Disposal Site

FINDING:

CM-S32: NO FINDING The pre-licensing plan approval application *does/does not* adequately provide evidence that if the proposed disposal site is on land not owned by state or federal government, that arrangements have been made for assumption of ownership in fee by a state or federal agency. (URCR R313-25-3(8))

BASIS:

CME did not address site ownership the requirements stated in R313-25-3(8). In response to Division interrogatories regarding the requirement for state or federal ownership of the proposed site, CME provided the following statement:

“It is Cedar Mountain’s position that the Radiation rules in effect when Cedar Mountain submitted its Siting Criteria Plan on January 30,2003 are the rules that are applicable and the Revised Rule does not apply to the Cedar Mountain Siting Criteria Plan. It is Cedar Mountain’s position that the land ownership required is part of the license application.

In order to address the licensing application requirement relating to land ownership, Cedar Mountain is preparing a petition to the Board for an exemption from the land ownership requirements.”

CME’s legal counsel also sent a letter to the Division detailing Cedar Mountain’s response on this matter.

The Division has made no finding during the Siting Criteria Plan review regarding the land ownership requirement. The Division will address ownership issues in connection with its review of CME’s license application when CME submits it.

REFERENCES:

Cedar Mountain Environmental, Inc., “Siting Criteria Plan,” January 30, 2003.

Cedar Mountain Environmental, Inc., Judd, Charles A, President, Letter to Craig Jones, Acting director, Utah Division of Radiation Control, August 21, 2003.

Cedar Mountain Environmental, Inc., Lucy B. Jenkins, Jones Waldo Holbrook & McDonough PC, Letter to William J. Sinclair, Executive Secretary, Utah Division of Radiation Control, August 19, 2003.

Utah Division of Radiation Control, William J. Sinclair, Executive Secretary, Letter to Lucy B. Jenkins, Jones Waldo Holbrook & McDonough PC, September 8, 2003.

CM-S33: Acknowledge Cities' and Counties' Authority

FINDING:

CM-S33: The Pre-Licensing Plan Approval Application does acknowledge that cities and counties have authority for local use planning and zoning and that they may impose additional requirements. (URCR R313-25-3(9))

BASIS:

CME is aware of the provisions of this regulatory requirement and acknowledges its applicability to the development of the proposed site.

The Division makes no finding about compliance with this requirement since it requires no action on the part of the applicant, CME.

REFERENCES:

Cedar Mountain Environmental, Inc., "Siting Criteria Plan," January 30, 2003.

Cedar Mountain Environmental, Inc., Judd, Charles A, President, Letter to Craig Jones, Acting director, Utah Division of Radiation Control, June 5, 2003.